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Control

Sawtooth ✓

Insect

INTERMOUNTAIN FOREST AND RANGE EXPERIMENT STATION
FOREST SERVICE, U. S. DEPARTMENT OF AGRICULTURE
Ogden, Utah
Reed W. Bailey, Director

Action	Initial
Moncrief	<i>fm</i>
Frykman	<i>800</i>
Grossenbach	<i>GRS</i>
Cooper	<i>MAC</i>
Moran	<i>DM</i>
Lowe	<i>DL</i>
Hartong	<i>ah</i>
Mohr	<i>CM</i>
Payne	
TM Clerk	

Sawtooth National Forest
Annual Aerial Survey
August 1958

By

W. E. Cole - W. E. Mineau
Entomologists

10 copies sent Sawtooth with
memo of 10/28/58

Prepared by

Division of Forest Insect Research
Boise Research Center
Boise, Idaho

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SAWTOOTH NATIONAL FOREST

ANNUAL AERIAL SURVEY

August 1958

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INTRODUCTION

The annual aerial survey of the Sawtooth National Forest was conducted in the same manner as in previous years, i. e., flights were made to cover all forested areas by drainages. The purpose of the examination was to detect evidence of unusual forest insect activity.

Where aerial observations indicated abnormal conditions further checks were made on the ground whenever possible. When formal ground appraisal surveys were required such was done and are reported separately.

Three degrees of intensity of damage, light, medium, and heavy, were used on the aerial work with defoliators that destroy the current year's needles. However, with defoliators such as pine butterfly, old growth needles are destroyed, detection is based on observing the adults in flight. Thus, a ground appraisal survey is required.

In the case of most bark beetles, the aerial detection reveals only the damage of the previous year's attacks and not the new infestations. In some cases there may be fading of foliage during the season of attacks. Generally, ground work is required to determine the current status of bark beetle infestations.

FOREST RESUME'

During this season there was a definite increase in damage by three bark beetles: Douglas-fir beetle in Douglas-fir, mountain pine beetle in lodgepole pine, and fir engravers in true firs. Damage by the Douglas-fir beetle is definitely greater than was observed last year. Trees killed ranged in number from 5 to 10 per group to over 600 trees (D-8).

Probably the largest single group of alpine fir trees attacked by fir engravers in southern Idaho lies on this forest. Over 1,500 trees were spotted on Dollarhide Summit on D-2.

^{1/} Forest aid-research

Approximately 2,700 lodgepole pine trees were chemically treated to control mountain pine beetle in 1958, but now areas of infestation are present throughout the South Fork Boise River and its tributaries. An appraisal survey is being conducted on the areas.

The spruce budworm infestation on the Sawtooth remains active and has increased some 41,000 acres with the total area of damage now approximating 141,000 acres. However, heavy defoliation was not widespread and many areas showed only light defoliation, particularly in the newer infestations.

The alpine fir defoliator infestation, assumed to be black-headed budworm, remains static in intensity size with moderate feeding on approximately 9,500 acres.

Sawfly in Douglas-fir was found throughout the north division of this forest at an endemic level. However, other areas of infestation in southern Idaho show a definite increase which conceivably could occur next year on the Sawtooth Forest.

RESULTS BY DISTRICTS

A description of each area of infestation follows and is keyed by ranger district:

Hailey District (D-1). No unusual insect activity was observed from the air.

Ketchum District (D-2). This district is relatively free of any serious infestation with the exception of a concentration of fir engravers near Dollarhide Summit. Over 1,500 trees were observed which were killed in 1957. This represents a substantial increase over the previous years. The occurrence of such a large single group of infested alpine fir is unusual for southern Idaho.

Scattered, single lodgepole pine trees attacked by mountain pine beetle were observed within several drainages and the situation will require close attention in the future.

A small localized infestation of budworm was observed on this district. The damage is light and at present indicates that the budworm is present at noticeable levels.

Defoliation of Douglas-fir by sawflies was observed in several small tributaries of Warm Springs Creek.

Sawtooth Valley District (D-3). The only insect damage noted on this district was some 5,000 acres of defoliated alpine fir caused by the black-headed budworm. Some spider mite damage was observed in 1957, but none was observed this season.

Fairfield District (D-4). This district contains the bulk of the old budworm infestation. As previously reported, the intensity of defoliation has fluctuated rather strongly since 1950. This season the trend was downward and no serious defoliation was observed.

Mountain pine beetle in lodgepole pine remains quite active and new areas of infestation were found in the South Fork Boise River, Big Smokey Creek, and around Big Peak. Over 300 dead trees were located within each of these areas.

The black-headed budworm remains active within some 4,500 acres of alpine fir within Emma, Vienna, Johnson, and Ross Fork drainages.

Light defoliation by sawflies on Douglas-fir was observed within Boardman, South Fork, and King-of-the-West drainages.

Shake Creek District (D-5). The Douglas-fir beetle infestations occur mostly on the west end of the district. Groups of 5, 10, and 25-30 dead trees were observed scattered throughout Lime, Deer, Grouse, Abbot, Virginia, and Shake Creeks. Between 200-300 affected trees were located on this district.

The mountain pine beetle in lodgepole pine was active in these same drainages. Approximately 150-200 infested trees were observed.

The Shake Creek District was included in the large expansion of budworm last year on the Sawtooth Forest. Defoliation was expected to be heavier this year, but it failed to develop beyond a light category.

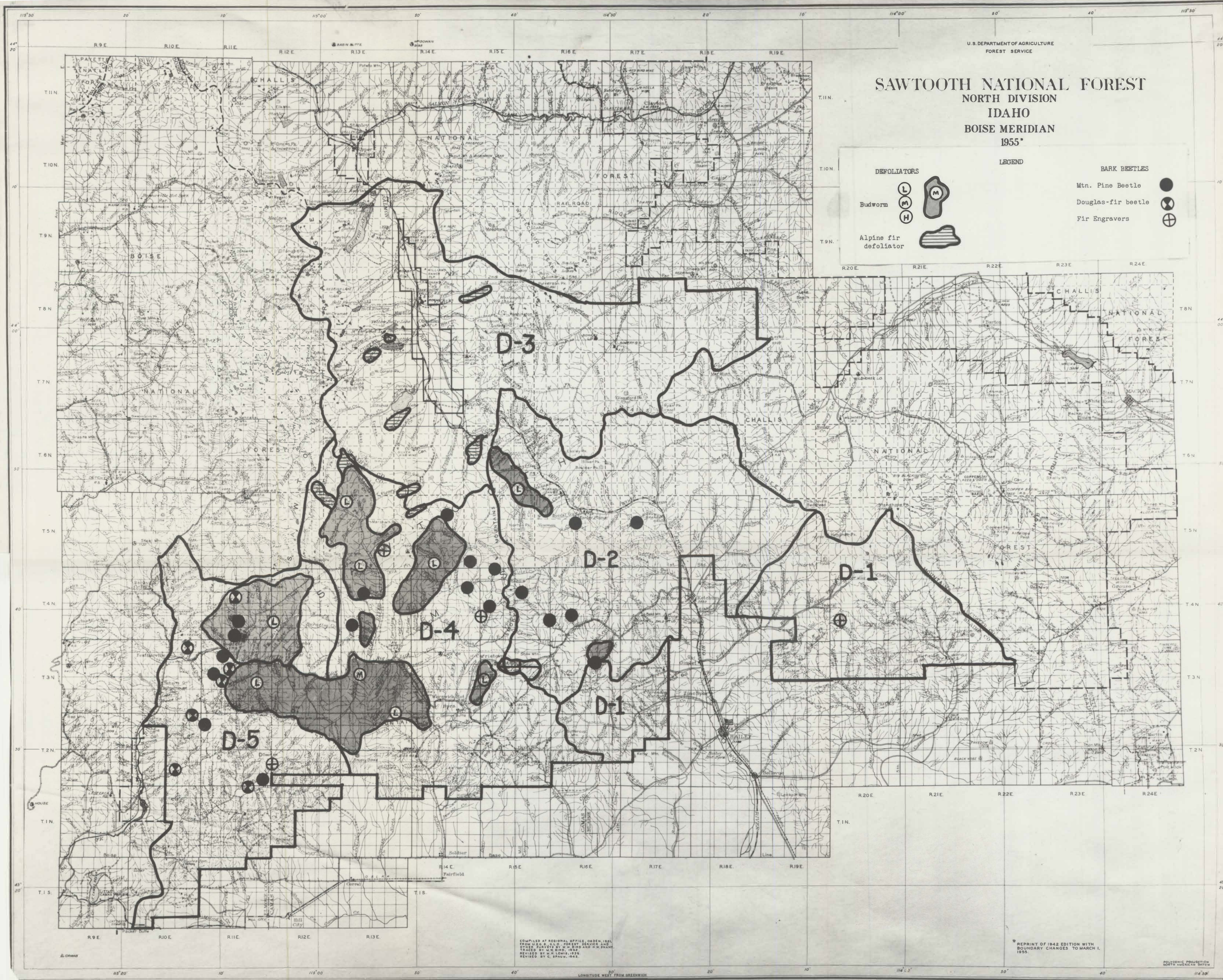
Malta District (D-8). Probably the largest number of trees killed by Douglas-fir beetle on the Sawtooth was found in this district on the east side of the Sublett Division. Over 600 dead trees were located between Heydlauf Creek on the south and Houtz Canyon on the north. Heydlauf Creek contains the bulk of the infested trees.

Light and sporadic loss of lodgepole pine due to the mountain pine beetle was located within Houtz, Heglar, and Harley Canyons.

SUMMARY OF INSECT DAMAGE

<u>District</u>	<u>Insect</u>	<u>Approximate damage</u>	
		<u>Trees killed</u>	<u>Acres defoliated</u>
Ketchum (D-2)	Mtn. pine beetle	Sporadic	---
	Budworm	---	Localized
	Sawfly	---	Sporadic
	Fir engraver	1,500	---
Sawtooth (D-3)	Black-headed budworm		5,000
Fairfield (D-4)	Douglas-fir beetle	Sporadic	---
	Mtn. pine beetle	900	---
	Fir engraver	See D-2	---
	Budworm	---	73,525
	Black-headed budworm	---	4,500
	Sawfly	---	Sporadic
Shake Creek (D-5)	Douglas-fir beetle	200 - 300	---
	Mtn. pine beetle	200	---
	Fir engravers	Endemic	---
	Budworm	---	67,650
Malta (D-8)	Douglas-fir beetle	600	---
Forest Total	Douglas-fir beetle	800 - 900	---
	Mtn. pine beetle	1,100	---
	Fir engravers	1,500	---
	Budworm	---	141,175
	Black-headed budworm	---	9,500
	Sawfly	---	Sporadic

SAWTOOTH NATIONAL FOREST
NORTH DIVISION
IDAHO
BOISE MERIDIAN
1955*



COMPILED AT REGIONAL OFFICE, ORESEN, 1951
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